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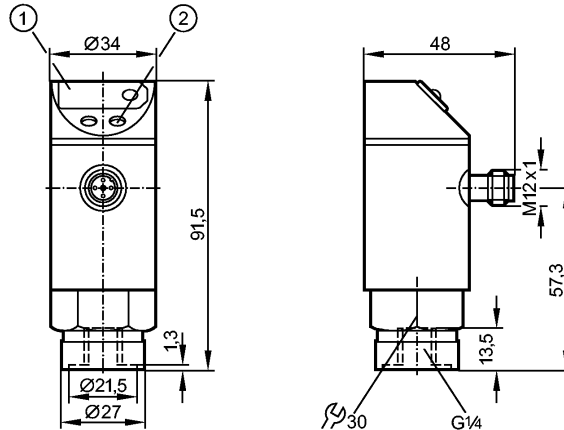
efectorsoo

PN7021



PN-250-SBR14-QFPKG/US/ IV

Pressure sensors



1: 7-segment LED display
2: Programming button



Product characteristics

Electronic pressure monitor

Quick disconnect

Function programmable

Process connection: G ¼ I

2 switching outputs

7-segment LED display

Measuring range: 0...250 bar

Application

Application

Type of pressure: relative pressure
Liquids and gases
For gaseous media the application is limited to max. 25 bar

Pressure rating [bar]

400

Bursting pressure min. [bar]

850

Medium temperature [°C]

-25...80

Electrical data

DC PNP

Electrical design

Operating voltage [V]

18...30 DC

Current consumption [mA]

< 60

Insulation resistance [MΩ]

> 100 (500 V DC)

Protection class

III

Reverse polarity protection

yes

Outputs

2 switching outputs

Output

2 x normally open / closed programmable

Output function

Current rating [mA]

250

Voltage drop [V]

< 2

Short-circuit protection

yes (non-latching)

Overload protection

yes

Switching frequency for a given set response time of one output *)

Response time (dAP)

[ms] 3 6 10 17 30 60 125 250 500

Switching frequency

[Hz] 170 80 50 30 16 8 4 2 1

Measuring / setting range

PN7021 - Electronic pressure monitor - eclass: 27201302 / 27-20-13-02

Measuring range	[bar]	0...250
Setting range		
Set point, SP	[bar]	2...250
Reset point, rP	[bar]	1...248
in steps of	[bar]	1
Accuracy / deviations		
Deviations (% of value of measuring range)		
Switch point accuracy		< ± 1.0
Repeatability		< ± 0.25
Temperature drift (/ 10 K)		< ± 0.3
in the temperature range	[°C]	-25...80
Reaction times		
Power-on delay time	[s]	0.2
Delay time programmable dS, dr	[s]	0, 0.2,...10, 11,...50
Integrated watchdog		yes
Software / programming		
Programming options		hysteresis / window function; N.O. / N.C.; on delay, off delay; damping
Adjustment of the switch point		Programming button
Environment		
Ambient temperature	[°C]	-25...80
Storage temperature	[°C]	-40...100
Protection		IP 67
Tests / approvals		
EMC		
	EN 61000-4-2 ESD:	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated:	10 V/m
	EN 61000-4-4 Burst:	2 kV
	EN 61000-4-6 HF conducted:	10 V
Shock resistance	DIN IEC 68-2-27:	50 g (11 ms)
Vibration resistance	DIN IEC 68-2-6:	20 g (10...2000 Hz)
Mechanical data		
Process connection		G ¼ I
Materials (wetted parts)		stainless steel (303S22); ceramics; FPM (Viton)
Housing materials		EPDM/X (Santoprene); FPM (Viton); PA; PBT (Pocan); PC (Makrolon); stainless steel (304S15)
Switching cycles min.		100 million
Weight	[kg]	0.295
Displays / operating elements		
Display		Switching status 2 x LED red Function display 7-segment LED display Measured values 7-segment LED display
Electrical connection		
Connection		M12 connector; gold-plated contacts
Wiring		
Programming of the output function:		
Hno = hysteresis / normally open		
Hnc = hysteresis / normally closed		
Fno = window function / normally open		
Fnc = window function / normally closed		
Complementary outputs:		
output 1: = Hno, output 2: = Hnc (with the same SP / rP)		
Remarks		
Remarks		*) at rectangular pressure characteristic and setting: switch-on point (SPx) = 70 %, switch-off point (rPx) = 30 %
Pack quantity	[piece]	1

